

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): An LSI package arranged on a mounting board and configured to be provided with a heat dissipation member, comprising:

an LSI configured to process signals, the LSI having signal input and output terminals and a surface to be coupled to the heat dissipation member;

an interposer configured to mount the LSI, and including first signal terminals electrically connected to the signal input and output terminals of the LSI, second electric terminals for electrically connecting the LSI to the mounting board, internal wirings electrically connected to the first signal terminals, and first coupling parts electrically connected to the internal wirings; and

an interface module including signal transmission lines configured to transmit the signals to outside and to receive the signals from outside, second coupling parts electrically connected to the signal transmission lines, and a package structure configured to hold the signal transmission lines and the second coupling parts, the second coupling parts being electrically connected to the first coupling parts by means of mechanical contact, respectively, and the package structure being mounted on the interposer and having a space for receiving the LSI to allow the heat dissipation member to be located above the surface of the LSI.

Claim 2 (Previously Presented): The LSI package according to claim 1, wherein:

the interposer has front and rear surfaces opposed to each other;

the LSI is mounted on the front surface of the interposer and the second electric terminal is provided on the rear surface of the interposer; and



the interface module further includes an input-output element configured to output the signals to the signal transmission lines and to input the signals from the signal transmission lines, the second coupling parts being electrically connected to the input-output element and the input-output element being provided in the package structure.

Claim 3 (Previously Presented): A LSI package arranged on a mounting board and having a configuration for mounting a heat dissipation member, comprising:

an LSI configured to process signals, the LSI having signal input and output terminals and a surface to be coupled to the heat dissipation member;

an interposer configured to mount the LSI, and including first signal terminals electrically connected to the signal input and output terminals of the LSI, second electric terminals for electrically connecting the LSI to the mounting board, internal wirings electrically connected to the first signal terminals, and first coupling parts electrically connected to the internal wirings; and

an interface module including signal transmission lines configured to transmit the signals to outside and to receive the signals from outside, second coupling parts electrically connected to the signal transmission lines, and a package structure configured to hold the signal transmission lines and the second coupling parts, the package structure being mounted on the interposer and having a space for receiving the LSI to allow the heat dissipation member to be located on the surface of the LSI, and the second coupling parts being electrically connected to the first coupling parts, the first or second or both coupling parts being provided with a mechanism of adjusting the gap height between the interface module and the interposer.



Claim 4 (Previously Presented): The LSI package according to claim 3, wherein the interposer has front and rear surfaces opposed to each other,

wherein the LSI is mounted on the front surface of the interposer and the second electric terminal is provided on the rear surface of the interposer;

wherein the interface module further includes an input-output element configured to output the signals to the signal transmission lines and to input the signals from the signal transmission lines, the second coupling parts being electrically connected to the input-output element and the input-output element being provided in the package structure.

Claim 5 (Previously Presented): The LSI package according to claim 3, wherein one of the first and second coupling parts includes coupling pins and the other of the first and second coupling parts includes insertion structures configured to receive the coupling pins and fix the coupling pins.

Claim 6 (Previously Presented): The LSI package according to claim 3, wherein the first and second coupling parts includes electrode pads, and an anisotropic conductive film is provided between the electrode pads to couple the electrode pads.

Claim 7 (Previously Presented): The LSI package according to claim 3, wherein one of the interface module and the interposer includes a guide pin mounted thereon and the other of the interface module and the interposer includes a guide hole to which the guide pin is inserted.



Claim 8 (Previously Presented): The LSI package according to claim 3, wherein the interface module further includes third electric terminals for electrically connecting the interface module to the mounting board.

Claim 9 (Previously Presented): The LSI package according to claim 4, wherein the interface module further includes a flexible electric wiring film coupled between the input-output element and the second coupling parts.

Claim 10 (Previously Presented): The LSI package according to claim 9, further comprising:

an anisotropic conductive film which has reversibility of thickness interposed between the first and second coupling parts.

Claim 11 (Previously Presented): The LSI package according to claim 3, wherein the interposer has front and rear surfaces opposed to each other, the LSI is mounted on the front surface of the interposer, and the first coupling parts are arranged along two sides or four sides of the LSI on the front surface of the interposer.

Claim 12 (Previously Presented): The LSI package according to claim 3, wherein the signal transmission line include optical waveguides, and the interface module has an optical element configured to convert the electric signals to the output optical signals and guide the output optical signals to the optical waveguide, and interface integrated circuits configured to drive electrically the optical elements.

Claims 13-14 (Canceled).



Claim 15 (Previously Presented): The LSI package according to claim 1, wherein the interposer has front and rear surfaces opposed to each other, the LSI is mounted on the front surface of the interposer, and the first coupling parts are arranged along two sides or four sides of the LSI on the front surface of the interposer.

Claim 16 (Previously Presented): The LSI package according to claim 1, wherein a heat sink is fixed to an upper surface of the interface module and disposed over the space of the package structure, the heat sink functioning as the heat dissipation member.

Claim 17 (Previously Presented): The LSI package according to claim 1, wherein the first coupling parts are provided on the front surface of the interposer.

Claim 18 (Previously Presented): The LSI package according to claim 3, wherein the first coupling parts are provided on the front surface of the interposer.

Claim 19 (Currently Amended): The LSI package according to claim 3, wherein the second coupling parts are electrically connected to the first coupling parts by means of mechanical contact, and when the mechanical contact being provided, ~~[[the]]~~ a thermal coupling between the LSI and the heat dissipation member being maintained.

Claim 20 (Previously Presented): An LSI package arranged on a mounting board, comprising:

an LSI configured to process signals, the LSI having signal input and output terminals;



an interposer configured to mount the LSI, and including first signal terminals electrically connected to the signal input and output terminals of the LSI, second electric terminals for electrically connecting the LSI to the mounting board, internal wirings electrically connected to the first signal terminals, and first coupling parts electrically connected to the internal wirings; and

an interface module including optical waveguides which transmit output optical signals to outside and to receive input optical signals from outside, an optical element configured to convert the input optical signals from the optical waveguides to the electric signals, convert the electric signals to the output optical signals and guide the output optical signals to the optical waveguide, and interface integrated circuits configured to drive the optical elements, and second coupling parts electrically connected to the optical element, the second coupling parts being electrically connected to the first coupling parts by means of mechanical contact, respectively.

Claim 21 (Previously Presented): The LSI package according to claim 20, wherein the interposer has front and rear surfaces opposed to each other, the LSI is mounted on the front surface of the interposer, and the first coupling parts are arranged along two sides or four sides of the LSI on the front surface of the interposer.